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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/498,772	02/05/2000	Alex Krister Raith	P-4015.398/P10569-BMOT-US	9286

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EXAMINER	
IQBAL, KHAWAR	

ART UNIT	PAPER NUMBER
2685	8

DATE MAILED: 06/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Office Action Summary	Application No.	Applicant(s)	
	09/498,772	RAITH, ALEX KRISTER	
	Examiner	Art Unit	
	Khawar Iqbal	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 April 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-5,8-26,32-43 and 45-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 2-5,8-26,32-43,45-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Souissi et al (6167268) and further in view of Menich et al (5327575).

1. Regarding claims 3 and 4 Souissi et al teach method of channel selection for a mobile station comprising:

determining a position of said mobile station (col. 3, 55-67),

periodically performing channel quality measurements of signals transmitted from one or more base stations (col. 1, lines 44-67) wherein a frequency of performing said channel quality measurements is a function of said position of said mobile station (col.4, lines 9-41, col. 6, lines 16-32). (cols 7-8)

frequency of performing said channel quality measurements is a function of the relative position of said mobile station with respect to a first base station serving said mobile station (col. 4, lines 50-64, fig. 1). Souissi et al does not specifically teach at least one additional base station. In an analogous art On the other hand Menich et al teach at least one additional base station (abstract, fig. 1-4, col. 4, lines 20-50, col. 5, lines 10-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

modify the device of Souissi et al by specifically adding more BS monitored for the purpose of improving performance as taught by Menich et al.

Regarding claims 2,16,32,37 and 45 Souissi et al teach frequency of performing said channel quality measurements is a function of the relative position of said mobile station with respect to a first base station serving said mobile station (col. 5, lines 5-20, col. 1, lines 47-55).

Regarding claims 17 and 40 Souissi et al teach frequency of performing said channel quality measurements is a function of the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station (col. 4, lines 50-64, fig. 1).

Regarding claims 5,19,20,34,41,47 Souissi et al teach position of said at least one additional base station is included in a neighbor list transmitted to said mobile station by said first base station, frequency of performing said channel quality measurements is a function of the mobility of said mobile station (col. 5, lines 21-67).

Regarding claim 8 Souissi et al teach method of channel selection for a mobile station comprising:

determining a position of said mobile station (col. 3, 55-67),

periodically performing channel quality measurements of signals transmitted from one or more base stations (col. 1, lines 44-67) wherein a frequency of performing said channel quality measurements is a function of said position of said mobile station (col.4, lines 9-41, col. 6, lines 16-32, col. 1, lines 47-55). Souissi et al does not specifically teach channel quality measurements is a function length of time. Souissi et al teach the

processing system 206 preferably computes 612 a rate of change of the distance with respect to time (col. 6, lines 35-60). On the other hand Menich et al channel quality measurements is a function length of time (abstract, fig. 1-4, col. lines 40-65, col. 5, lines 10-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Souissi et al by specifically adding measurements is a function length of time for the purpose of improving performance as taught by Menich et al.

Regarding claims 21,22,35,42,43 and 48 Souissi et al teach frequency of performing said channel quality measurements is a function of the rate of change of said position of said mobile station (col. 6, lines 33-65, col. 6, figs. 4-6).

Regarding claims 9 and 23 Souissi et al teach channel quality measurements are performed by said mobile station while said mobile station is in an idle mode (col. 6, lines 1-15).

Regarding claim 12 Souissi et al teach mobile station uses said channel quality measurement for cell reselection (col. 4, lines 30-41, col. 6, lines 22-32).

Regarding claim 13 Souissi et al teach further including transmitting said channel quality measurements from said mobile station to a first base station serving said mobile station (col. 4, lines 10-41).

Regarding claims 14 and 26 Souissi et al teach making hand-off determinations at said first base station based on said channel quality measurements (col.6, line 50 through col. 7, line 8, fig. 6).

Regarding claims15 and 18 Souissi et al teach a method of determining the position of a mobile station (abstract, fig. 1) comprising:

determining a position of said mobile station at a first time instant (figs. 1-7, col.3, line 55-col.4, line 8). Souissi et al teach updating said position periodically, (col. 1, lines 44-67) wherein a frequency of said updating is a function of said position of said mobile station (col.4, lines 9-41, col. 6, lines 16-32). Souissi et al do not specifically teach in detail as Menich et al explain. Menich et al updating said position periodically, wherein a frequency of said updating is a function of said position of said mobile station (abstract, col. 3, lines 50-62, col.4. lines 20-60, col. 5,lines 10-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Souissi et al by specifically adding updating said position periodically for the purpose of improving performance as taught by Menich et al.

Regarding claim 33 Souissi et al teach a mobile station comprising:

a transceiver transmitting and receiving radio frequency signals (col.4, lines 1-40);

a signal processor operatively connected to said transceiver, said signal processor periodically (col. 6, lines 16-30) performing channel quality measurements on selected signals received by said transceiver; control logic controlling said signal processor and said transceiver to vary the frequency of performing said channel quality measurements as a function of the position of said mobile station (col. 5, lines 21-66).

Wherein said control logic varies the frequency of performing said channel quality measurements is a function of the relative position of said mobile station with respect to a first base station serving said mobile station. (col. 4, lines 50-64, fig. 1). Souissi et al

does not specifically teach at least one additional base station. On the other hand Menich et al teach at least one additional base station (abstract, fig. 1-4, col. 4, lines 20-50, col. 5, lines 10-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Souissi et al by specifically adding more BSs monitored for the purpose of improving performance as taught by Menich et al.

Regarding claim 36 Souissi et al teach teach a mobile station comprising:

a transceiver transmitting and receiving radio frequency signals (col.4, lines 1-40);

a signal processor operatively connected to said transceiver, said signal processor periodically (col. 6, lines 16-30) performing channel quality measurements on selected signals received by said transceiver; control logic controlling said signal processor and said transceiver to vary the frequency of performing said channel quality measurements as a function of the position of said mobile station (col. 5, lines 21-66).

Wherein said control logic varies the frequency of performing said channel quality measurements base on the length of time said mobile station remains in said position. (col. 4, lines 50-64, fig. 1). Souissi et al does not specifically teach at least one additional base station. On the other hand Menich et al teach at least one additional base station (abstract, fig. 1-4, col. 4, lines 20-50, col. 5, lines 10-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Souissi et al by specifically adding more BS monitored for the purpose of improving performance as taught by Menich et al.

Regarding claims 38 and 39 Souissi et al teach a mobile station comprising:

a transceiver transmitting and receiving radio frequency signals (col. 4, lines 1-40);

a positioning receiver periodically (col. 6, lines 16-30) determining a position of said mobile station; control logic controlling said transceiver and said positioning receiver, wherein said control logic varies the frequency of determining said position of said mobile station as a function of said position (col.4, lines 9-41, col. 6, lines 16-32, col. 5 lines 21-66). Souissi et al does not specifically teach varies the frequency. On the other hand Menich et al teach varies the frequency (abstract, fig. 1-4, col. 4, lines 44-64, col. 5, lines 10-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Souissi et al by specifically varies the frequency for the purpose of improving performance as taught by Menich et al.

Regarding claim 46 Souissi et al teach A method of controlling a mobile station comprising:

determining a position of said mobile station (col. 3, 55-67);

and performing a periodic task (col. 1, lines 44-67), wherein a frequency of performing said task is a function of said position of said mobile station (col.4, lines 9-41, col. 6, lines 16-32).

Wherein said frequency of performing said periodic task is a function of the relative position of said mobile of mobile station with respect to a first base station serving said mobile station (col. 5, lines 5-20, col. 6 lines 16-33). Souissi et al does not specifically teach at least one additional base station. On the other hand Menich et al teach at least

one additional base station (abstract, fig. 1-4, col. 4, lines 20-50, col. 5, lines 10-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Souissi et al by specifically adding more BS monitored for the purpose of improving performance as taught by Menich et al.

Regarding claim 49 Souissi et al teach a method of controlling a mobile station comprising:

determining a position of said mobile station (col. 3, 55-67);

and performing a periodic task (col. 1, lines 44-67), wherein a frequency of performing said periodic task is a function of said position of said mobile station (col.4, lines 9-41, col. 6, lines 16-32). Souissi et al does not specifically teach channel quality measurements is a function length of time. Souissi et al teach the processing system 206 preferably computes 612 a rate of change of the distance with respect to time (col. 6, lines 35-60). On the other hand, Menich et al channel quality measurements is a function length of time (abstract, fig. 1-4, col. lines 40-65, col. 5, lines 10-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Souissi et al by specifically adding measurements is a function length of time for the purpose of improving performance as taught by Menich et al.

2. Claims10, 11,24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Souissi et al (6167268) and further in view of O'Neal et al (# 6263064).

3. Regarding claims 10,11,24 and 25 Souissi et al do not specifically teach packet switched call and circuit switched call. In an analogous art, O'Neal et al disclose packet

switched call and circuit switched call (col. 10, lines 45-67, col. 11, lines 1-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of O'Neal et al user packet switched call and circuit switched call modify into the system of Souissi et al channel selection procedures very depending on whether circuit-switched or packet-switched connection are used in wireless communication system.

4. **Response to Arguments**

Applicant's arguments with respect to claims 2-5,8-26,32-43,45-49 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1,6,7,27-31 and 44 have been canceled.

Claims 2,3,8-13,32-37,45-47 and 49 have been amended.

5. **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Halonen (# 6389264), Yamashita (# 6256500), Satarasinghe (# 6192246), Gettleman et al (6181946), Birchler et al (6161015) and Light et al (6061337) teach scanning channels base position selection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is 703-306-3015.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EDWARD URBAN, can be reached at 703-305-4385.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2684 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Khawar Iqbal

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